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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/714,845 | 11/18/2003 | Toshiki Taguchi | Q78551 | 3169 |

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

| EXAMINER | |
|---|---|
| KLEMANSKI, HELENE G | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1755 | |

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/714,845 | TAGUCHI ET AL. | |
| | Examiner | Art Unit | |
| | Helene Klemanski | 1755 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2/18/04&3/26/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 and 9 of copending Application No. 10/645,797 (US 2004/0053988). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said patent claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 8, 9, 14 and 15 of copending Application No. 10/671,736 (US 2004/0080596). Although the conflicting claims are not identical, they are not patentably distinct from each other because the

claims of the present application overlap said patent claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-9 and 11 of copending Application No. 10/714,945 (US 2004/0154496). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said patent claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 8, 9, 14 and 15 of copending Application No. 10/671,729 (US 2004/0070654). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said patent claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

In the above copending Application's, it is the examiner's position that it would have been obvious to one having ordinary skill in the art that: (1) the [I(λmax+70 nm)/

I(λmax) ratio of an absorbance I(λmax+70 nm) at λmax+70 nm to an absorbance I(λmax) at λmax of not more than 0.4; (2) when a light having a wavelength of a λmax of the ink in a yellow region of 390 nm to 470 nm is illuminated to the printed medium, whose reflection spectrum of light is measured by a spectrophotometer, and a point giving a reflection spectrum such that a reflection density, $D_H$, at the λmax of the ink in the yellow region, is from 0.90 to 1.10; (3) a reflection density at the λmax of the ink in the a region of longer than 470 nm to 750 nm at the point is defined as $D_x$ and (4) a forced discoloration rate constant determined from a time when each of the reflection densities $D_H$ and $D_x$ becomes 80% of an initial density is defined, and both of the rate constants are not more than $5.0 \times 10^{-2}$ $hour^{-1}$ since the yellow dye having a λmax of from 390 nm to 470 nm and the other dye having a λmax of longer than 470 nm to 750 nm of the above copending Application's are the same structure as those claimed by applicants.

### *Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Taguchi et al. (US 2004/0053988).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Taguchi et al. teach an ink set comprising a plurality of ink different in hues wherein the plurality of inks includes a black ink containing a coloring agent that is a dye having a λmax of from 500-700 nm; a half value width of 100 nm or more in an absorption spectrum of a dilute solution normalized to an absorbance of 1.0; and a forced fading rate constant $k_{vis}$ of $5.0 \times 10^{-2}$ [$hour^{-1}$] or less. The dye is of the formula

wherein A, B and C each independently represents an aromatic group which may be substituted, or a heterocyclic group which may be substituted; m is an integer of 1 or 2; n is an integer of 0 or more, with the proviso that at least one of A, B and C is a heterocyclic group that may be substituted. The black ink optionally contains another dye having a λmax of 350-500 nm. Taguchi et al. further teach that coarse particles can be removed by known methods such as centrifugation and microfiltration. See paras. 0010-0015, paras. 0036-0045, paras. 0093-0096, Tables 1-6, paras. 0115-0117, paras.

0358-0359, example 1, Table A and claims 1-4. The black ink as taught by Taguchi et al. appears to anticipate the present claims.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The only limitations in the claims not found by the examiner are the (1) the [I(λmax+70 nm)/ I(λmax) ratio of an absorbance I(λmax+70 nm) at λmax+70 nm to an absorbance I(λmax) at λmax of not more than 0.4; (2) when a light having a wavelength of a λmax of the ink in a yellow region of 390 nm to 470 nm is illuminated to the printed medium, whose reflection spectrum of light is measured by a spectrophotometer, and a point giving a reflection spectrum such that a reflection density, $D_H$, at the λmax of the ink in the yellow region, is from 0.90 to 1.10; (3) a reflection density at the λmax of the ink in the a region of longer than 470 nm to 750 nm at the point is defined as $D_x$ and (4) a forced discoloration rate constant determined from a time when each of the reflection densities $D_H$ and $D_x$ becomes 80% of an initial density is defined, and both of the rate constants are not more than $5.0 \times 10^{-2}$ $hour^{-1}$. However, these limitations are considered inherent because there does not appear to be any reason why the cited reference would not contain a dye with applicants claimed properties since the yellow dye having a λmax of from 390 nm to 470 nm and the other dye having a λmax of longer than 470 nm to 750 nm of the above reference are the same structure as those claimed by applicants.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being obvious over Taguchi et al. (US 2004/0070654).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Taguchi et al. teach a black ink containing 0.2-25 wt% of a coloring agent that is a dye having a λmax of from 500-700 nm; an oxidation potential of 1.0 or nobler, a half value width of 100 nm or more in an absorption spectrum of a dilute solution normalized to an absorbance of 1.0; and a forced fading rate constant $k_{vis}$ of $5.0 \times 10^{-2}$ [$hour^{-1}$] or less. The dye is of the formula

wherein A, B and C each independently represents an aromatic group which may be substituted, or a heterocyclic group which may be substituted; m is an integer of 1 or 2; n is an integer of 0 or more, with the proviso that at least one of A, B and C is a heterocyclic group that may be substituted. The black ink optionally contains 1-80 wt% based on the whole dye content of another dye having a λmax of 350-500 nm that is of the same formula as above. See para. 0015, para. 0017, para. 0025, para. 0028, paras. 0034-0036, para. 0044, para. 0046, para. 0051, paras. 0137-0142, para. 0169, para. 0254 and claims 2, 8, 9, 14 and 15. Taguchi et al. fails to specifically exemplify the use of a combination of a yellow dye having a λmax of 350-500 nm and another dye having a λmax of from 500-700 nm as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art to use the specific combination of dyes as claimed by applicants as Taguchi et al. also discloses the use of this combination but fails to show an example incorporating it.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

***Conclusion***

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Helene Klemanski
Primary Examiner
Art Unit 1755

HK
July 11, 2005